

## **REMARKS**

In the present Non-Final Office Action mailed May 2, 2007, claims 1-21 were pending before the Office. Of these, claims 1, 7, 10, and 18 were the only independent claims.

The Examiner rejected all the claims. Claims 1-6, 10, and 14-17 were rejected under 35 U.S.C. §102. Claims 7-9, 11-13 and 18-21 were rejected under 35 U.S.C. §103.

Claims 1 and 10 and the specification have been amended herein.

### **A. AMENDMENT TO THE SPECIFICATION**

The specification was amended to include application numbers and filing dates of the related applications. No new matter was added with this amendment to the specification.

### **B. REJECTION OF CLAIMS UNDER 35 U.S.C. §102**

Claims 1-6, 10, and 14-17 are rejected under 35 U.S.C. 102(e) as being anticipated by U.S. Publication No. 2004/0081167 (Hassan-Ali et al I). Of the rejected claims, only 1 and 10 are independent claims. Independent claim 1 has been amended to include features from dependent claim 2. Independent claim 10 has been amended with features from dependent claims that were not rejected under 35 U.S.C. §102.

With regards to independent claim 1, Applicants assert that the Hassan-Ali et al I reference fails to teach or suggest all the features of amended independent claim 1. Specifically, Applicants assert that Hassan-Ali et al I reference fails to teach or suggest at least the features of transmitting data from the selected pipe flow using a bandwidth corresponding to the winning pipe flow as recited in amendment independent claim 1. Examiner cites to three

paragraphs ([0049], [0054], and [0069]) as teaching or suggesting the feature of dependent claim 2. Paragraph [0049] appears to teach that ATM traffic can be categorized based on a Class of Service (CoS) defined by such factors as the time sensitivity, peak and sustained bandwidth guarantees, burstiness and delivery guarantees. Paragraph [0054] appears to teach a virtual channel connection (VCC) or a virtual path connection (VPC) that can be either of the following two types: (i) point-to-point connections, wherein bi-directional connections are established and the sources in each direction may be different and (ii) point-to-multipoint connections, which typically utilize a plurality of uni-directional connections for multicast transport across the fabric. Paragraph [0069] appears to teach that an ATM scheduler's main task is to regulate the injection of incoming cells compliant with a traffic descriptor into the switching fabric, attain optimum isolation between fabric connections, distribute the fabric's bandwidth in a fair way, and to achieve statistical gains by better utilization of the available bandwidth. However, in none of the above passages is there anything to suggest a 'winning pipe flow' much less transmitting data from the selected pipe flow using a bandwidth corresponding to the winning pipe flow as recited in amendment independent claim 1. Accordingly, for at least the above reasons, Applicants submit that the amended independent claim 1 is allowable over the relied upon Hassan-Ali et al I reference.

With regards to claim 10, independent claim 10 was amended to include features from the dependent claim 11 which was not rejected under 35 U.S.C. §102. However, Applicants note that dependent claim 11 was rejected under 35 U.S.C.

§103. Applicants assert below that this dependent claim is allowable under 35 U.S.C. §103.

Accordingly, Applicants assert that independent claims 1 and 10, as amended, and their respective dependant claims are allowable under 35 U.S.C. §102 over Hassan-Ali et al I.

**C. REJECTION OF CLAIMS UNDER 35 U.S.C. §103**

Claims 7-9, 11-13 and 18-21 are rejected under 35 U.S.C. 103(a) as being unpatentable over Hassan-Ali et al I in view of U.S. Patent Pub. 20040081157 (Hassan-Ali et al II). Of these claims, 7 and 18 were the only independent claims. Applicants respectfully traverse this rejection for reasons explained below.

Applicants submit that the relied upon references fail to teach or suggest at least the features of "writing data regarding the pipe to a first calendar, writing data regarding the pipe flow to a second calendar" or the like as recited in independent claims 7 and 18. On page 4 of the Office Action, the Examiner cites to Hassan Ali et al II as teaching or suggesting writing data regarding the pipe flow to a second calendar. More specifically, the Examiner asserts that Hassan-Ali II teaches "... an efficient sorting method for sorting time stamps (TS) from values using a hybrid calendar heap by creating a hierarchical three level search. (5: [0044] and Figure 5)." Further, Examiner asserts that the features of by partitioning the TS data in such a structure, the sorting can be efficiently achieved" are sufficient to render obvious the claimed features. Applicants respectfully disagree.

First, Applicants submit that there does not even appear to be a mention of a second calendar in the recited passage nor the entire relied upon references much less disclosure of writing data regarding the pipe flow to a second calendar. Hassan Ali et al II does appear to teach that "...the scheduler of the present invention is provided with a **two-dimensional hierarchical architecture**, wherein the scheduling functionality is partitioned among the data flow aggregation layers as well as the service priority categories (referred to as "planes")." (paragraph [0069], emphasis is added). However, there is nothing in the reference to suggest a second calendar. Thus, Applicants submit that all of the elements are not recited in the relied upon references. Accordingly, Applicants submit that it is not taught or suggest nor obvious to one of ordinary skill in the art to modify (even if such a modification was possible) such teachings to arrive at writing data regarding the pipe flow to the second calendar as recited in the independent claims 7 and 18. For at least this reason, Applicants assert that the independent claims 7 and 18 are allowable under 35 U.S.C. §103 over the relied upon references.

Moreover, Applicants note that that the specification makes clear that the second calendar is useful. More specifically, the present Application teaches that "[t]he secondary calendar may identify during a time unit an entry that needs servicing during the time unit from each priority group. Thereafter, from the identified entries the secondary calendar selects a winner to be serviced during the time unit." (Application, page 14). Applicants respectfully submit that such usefulness is not explicitly taught or

suggested in, nor obvious over, the above recited portions of the relied upon references.

Accordingly, Applicants assert that independent claims 7 and 18 are originally filed is allowable under 35 U.S.C. §103 over Hasan-Ali I and Hasan-Ali II, alone or in combination.

As noted above, Applicants have herein amended independent claim 10 with features from dependent claim 11 to make independent claim 10 allowable under 35 U.S.C. §102. Dependent claim 11 was rejected under 35 U.S.C. §103. Applicant traverse this rejection for the below reasons.

Dependent claim 11 recites, among other things, features such as a scheduler logic that comprises a primary calendar for storing at least one of an autonomous flows and a pipe that are scheduled to be serviced, a secondary calendar for storing pipe flows that are scheduled to be serviced, and a pipe queue table for storing a winning pipe flow in a queue for a pipe to which the pipe flow corresponds. Applicants submit that nowhere in the cited to passages are such features taught, suggested or rendered obvious.

Examiner cites to Figure 12 and paragraphs [0039] and [0040] of the reference as teaching the features recited in dependent claim 12. Paragraph [0039] teaches that when a cell arrives and the cell buffer relative to its FID was previously empty, a Flow Activation message is sent by the QCM to the LBM. This interface contains the information found in the context memory relative to the flow. Paragraph [0042] teaches that the Leaky Bucket memory is checked, preferably periodically, in order to prevent the storage of expired times. Figure 12 appears to teach features similar to those discussed in paragraphs [0039] and [0042]. However, nowhere

in these cited to portions of the Hasan-Ali et al II reference are the features of the dependent claim 11 taught, suggested or rendered obvious.

Accordingly, Applicants assert that the dependent claim 11 is allowable over the Hassan-Ali et al I and the Hassan-Ali et al II references, alone or in combination under 35 U.S.C. §103. Thus, amended independent claim 10 is asserted to be allowable under 35 U.S.C. §103.

#### **D. CONCLUSION**

Since the Applicants assert that all the independent claims as amended are in condition for allowance and all remaining claims properly depend from the independent claims, Applicants assert that all claims are allowable.

A separate Request for Extension of Time is enclosed herewith, with authorization to charge the requisite extension fee to Deposit Account No. 04-1696. Applicants do not believe any other Request for Extension of Time is required but if it is, please accept this paragraph as a Request for Extension of Time and authorization to charge the requisite extension fee to Deposit Account No. 04-1696. Applicants do not believe any additional fees are due regarding this Amendment. However, if any additional fees are required, please charge Deposit Account No. 04-1696.

Respectfully Submitted,



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